The Maryland Fruit Grower

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Edited by the Secretary, A. F. Vierheller, Extension Horticulturist
College Park, Maryland.

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Real Living
Carolee Stark, Urbana, Indiana

An apple, a book and an easy chair
By the side of an open fire
Whose flaming light brings warmth and cheer,
What more can a man desire?

How sweet in the evening when day's at an end,
Just to while the hours away
With an apple, a book, and a loving friend.
'Tis the end of a perfect day!

Oh, why should we ever be restless or sad
When pleasures like these are given.
For an apple, a book, and an easy chair
Brings a feeling akin to heaven.

THE FORTY-SEVENTH ANNUAL MEETING

The Forty-Seventh Annual Meeting of Maryland State Horticultural Society will be held at Hotel Alexander, Hagerstown, on Wednesday and Thursday, January 3 and 4, 1945. Programs will be mailed after Christmas. Every effort is made to make these meetings of interest and value to growers in considering their past difficulties and the methods of improving the situation for the coming season. All fruit-growers are invited.

MARYLAND APPLE EXHIBIT

The Maryland Apple Exhibit will be held on the Mezzanine floor of Lord Baltimore Hotel, Baltimore, on Wednesday and Thursday, January 10 and 11, 1945, in connection with the Annual Meetings of the Farm Bureau and Affiliated Farm Organizations. The Maryland State Horticultural Society is an affiliate but the meetings of the Society are held in Hagerstown as this seems to be the best location for reaching the largest number of growers. Entry blanks for the Exhibit are enclosed. The Exhibit is not a large one, due to lack of space, but it is attractive and certainly shows perfection in apple growing, and attracts much attention. The premium money is furnished by the Maryland State Fair Board and the Exhibit is sponsored by Maryland State Horticultural Society and University of Maryland Extension Service. Growers are invited to exhibit at this event.

VIRGINIA MEETINGS

The Virginia State Horticultural Society will meet at Hotel Roanoke, Roanoke, Virginia, on December 5, 6, and 7 in conjunction with American Pomological Society. All growers are invited to attend.

ITEMS OF INTEREST

National Apple Institute Bulletin No. 183, October 26, 1944, contains the following items:

520½ Cars Hurricane Apples: Up to Oct. 21, W. F. A. had bought 520½ cars of hurricane blow-downs in the storm stricken area on the Atlantic coast. This approximates 400,000 bushels or about one-seventh of the 3,500,000 bushels of apples blown from the trees by this hurricane. The program will be concluded Oct. 31st. The consensus of opinion is that this undertaking has been most successful. It was organized and got underway quickly and it took out of commercial channels that portion of the drops which were too poor for consumer acceptance but too good to go for cider or juice. Had those 400,000 bushels of tough-looking drops been forced through the markets, it is believed that the whole Eastern market structure would have been disorganized for an indefinite period. Most of the hurricane drops are now gone and the markets are about back to normal.

Of the 520½ cars purchased, 115½ came from Connecticut; 74 from Delaware; 11½ from Maryland; 19 from Maine, 182½ from Massachusetts; 52 from New Hampshire; 44 from New Jersey; 13 from New York; 5 from Rhode Island; and 4 from Vermont.

Next Spring's Fertilizer: W. F. A. says fruit ranks high on the food list, and fruit orchardists should be able to get as much fertilizer as they need for the 1944-45 season if they buy early. The total supply of mineral nitrogen for essential crops in 1944-45 may be somewhat less than last year. The W. F. A. is encouraging fall buying of fertilizer to keep factories working and to relieve the spring rush on factories and transportation. All the phosphate and potash fertilizer needed will be available if a substantial tonnage is used this Fall. Labor is the limiting factor in fertilizer production and will restrict the supply unless there is a large off-season movement.

Have You Read the Advertisements?

NEW THINGS ARE COMING

Maryland Nurserymen's News, October, 1944, contains parts of an address by H. C. Young, Pathologist, Ohio Agricultural Experiment Station, which is of interest. It should be remembered that some of the compounds described are still experimental. Dr. Young's remarks follow:

"Bordeaux mixture is now 60 years old and sulfur in one form or another has been used from Biblical times. Up until today sulfur and copper remain the two leading fungicides. Aside from the fact that both lime sulfur and Bordeaux cause too much injury, the problem of incompatibility with many of the newer necessary insecticides makes substitute materials imperative. Such substitutes have been slow in coming, but today several entirely new and promising materials are being tested. The present outlook is extremely encouraging and in the early post-war period, many of these new compounds can be definitely recommended. Perhaps fungicides will not include copper and only rarely eliminate sulfur. The ice is broken and we can expect many, many new types of materials.

It may be possible too that compounds similar to pencillin derived from many types of micro-organisms may make excellent general fungicides. The shade tree expert will need to keep posted on these new developments and

with the DOW CONTROL PROGRAM

Crop protection for the coming season starts right now. It begins with determining precisely what insect problems you are up against in your particular locality during the coming year—perhaps consulting with your state experiment station.

With this information, it is a simple matter to contact your Dow Dealer and decide what Dow insecticides will give specific controls for your problems for the entire year.

Fruit growers the country over have found that they get more protection for less money by using Dow Insecticides for complete season control. The reason lies in the effectiveness and long-pull economy of the Dow products.

COMPLETE CONTROL WITH DOW INSECTICIDES
Dowspray Dormant and DN-Dry Mix control a wider variety of insects in the dormant season than any insecticide now on the market . . . Dow Arsenate of Lead, "Mike" Wettable Sulfur, and Dow Dry Lime Sulfur take care of all early spray requirements . . . Bordow is an efficient copper fungicide for cherries . . . DN-Dust No. 4 and DN-111 are well recognized as effective summer sprays for red mite and leaf hopper . . . Paradow has done an outstanding job for years in combatting peach borer . . . App-L-Set controls pre-harvest fruit drop.

The use of the Dow Insecticides assures you of better, bigger fruit crops. Write today for complete information.

THE DOW CHEMICAL COMPANY
Midland, Michigan
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Houston

INSECTICIDES

There's a Dow Product for practically every spraying and dusting need. Consult your dealer or state experiment station or write us.

DOW

CHEMICALS INDISPENSABLE TO INDUSTRY AND VICTORY

make speedy use of the advancements.

The first major innovation in replacement materials has been in Bordeaux substitution. The general class of fixed copper has replaced Bordeaux for use on many types of plants. At present there are many of these on the market, the more common ones being tribasic copper sulfate, copper oxychloride, copper oxychloride sulfate, copper oxides, and many other similar trade-named compounds.

The most interesting development in new fungicides is with organic sulfurs and particularly a group of compounds involving dithiocarbamic acids. So far, such trade named products containing this derivative are Fermate, Dithane, and Methasan.

Fermate, the iron salt of dimethyl dithio-carbamic acid, has had very broad trials, and has been found effective and safe on a wide variety of foliage. Examples of a few tests, where safety and effectiveness have been reported, are most apple and peach diseases, cedar rust (very effective for the apple stage), sweet cherries, pear scab, celery blights, bean anthracnose, tomato anthracnose, potato diseases, tulip blight, black spot of roses, chrysanthemum leaf spot, and rust on snapdragons and carnations.

It is comparable with all types of wettable sulfurs, arsenate of lead (It is reported to safen lead somewhat), calcium arsenate, nicotine, rotenone, DDT, oils, and to a limited extent, hydrated lime. It is not compatible with most metallic compounds such as those containing copper and mercury, lime-sulfur, and to a certain extent, hydrated lime. The diluents that may be used with Fermate are talcs, bentonite, clays, flour and perhaps many others. The fact that Fermate is widely compatible with most insecticides makes a broad field for its use. Since it is less affected by climatic conditions, it is safe on more types of foliage than either sulfur or copper compounds. This statement has to do with northern climates only. Where summer oil is necessary for codling moth control, Fermate may be added for the control of scab and other apple diseases. Unfortunately, we have no results from its use on shade trees. Undoubtedly it can be used quite broadly in that field also, since it is an oil-compatible fungicide.

Methasan and Dithane. Methasan is the zinc salt of dimethyl dithio-carbamic acid. The results of one year's tests indicate that it is more specific than Fermate. It gave excellent control of cherry leaf spot, apple scab, and potato diseases. It is very similar to Fermate as to its compatibility with other materials.

Dithane is sodium ethyl dithio-carbamic acid. This compound has been widely tested and shows promise in many fields. It probably reacts with other compounds much as Fermate.

Puratized. Puratized is an organic mercury and contains no sulfur. It is an entirely new type of fungicide and one that normally and without testing seemed unsuitable. Similar compounds have been used for years for seed treatments. Many have been tested on foliage and proven too toxic. This one, however, seems safe at a dilution that controls fungi. It is used at 1 to 8,000 to 10,000. At such dilutions a semi-concentrate is marketed in which one pint is used per 100 gallons of water. The results of one year's tests in

PREMIUM LIST

MARYLAND APPLE EXHIBIT, LORD BALTIMORE HOTEL, BALTIMORE

January 10-11, 1945

Open to Maryland Growers only.

Exhibit will be placed on Mezzanine Floor, Lord Baltimore Hotel, Baltimore, on Wednesday, January 10, 1945. There will be no exhibits of commercial baskets or boxes, but to add to the decorative effect of the exhibit, a premium of $3.00 each will be awarded to the five best fancy baskets in the Exhibit. Only one fancy basket entry will be allowed each exhibitor. Type of basket, varieties, or decorative materials used are left to the exhibitor's discretion.

To avoid confusion and to save time, it is requested that exhibitors select their fruit at home, and have exhibits ready to set up immediately upon arrival. Bring some "spares" or alternative fruits in case some of the exhibit fruit becomes damaged or lost in transit. Exhibits should be in place by noon, or even earlier, if possible. Any extra fruits not used in exhibits may be stored under the tables. Exhibitors must arrange for removal or sale of fruit after the Exhibit is taken down.

All fruit entered by an individual must have been grown on his farm.

RULES - Only one entry per class is allowed one individual. For example, a grower may enter one plate or diamond display of any of the varieties listed below, but he may not enter more than one plate or diamond of the same variety. However, he may enter any number of the specified varieties in any of the classes. In other words, he may enter any number of plates or diamond displays of different variety.

VARIETIES - York, Stayman, Grimes, Winesap, Golden Declicious, Rome, Delicious, Jonathan, and Paragon (or Black Twig). RED BUD SPORTS will be grouped and judged as one variety in both plate and diamond classes, and any ODD VARIETIES not listed above will be placed in one group and judged in both plate and diamond classes as one variety. There will be one first, second, and third award in red bud sport plates, also in diamonds, and the same for odd variety plates, also diamonds.

PREMIUM AWARDS

CLASS I - PLATES (5 apples per plate). First place, $4.50;
Second place, $3.50; Thirs place, $2.00.

CLASS II - DIAMONDS - (16 apples per diamond). First place, $6.50;
Second place, $5.50; Third place, $4.00.

BEST PLATE EXHIBIT IN SHOW - One award - $5.00

BEST DIAMOND EXHIBIT IN SHOW - One Award - $10.00

All premium awards are made from funds provided by Maryland State Fair Board. The Exhibit is sponsored by the Fair Board, The University of Maryland, Extension Service, and The Maryland State Horticultural Society.

Any further information regarding the Exhibit may be obtained by writing A. F. Vierheller, Extension Horticulturist, University of Maryland, College Park, Maryland.

ENTRY BLANK
MARYLAND APPLE SHOW
Baltimore, Md., January 10-11, 1945.

(Please return to
(A.F.Vierheller,
(College Park, Md.
(as soon as possible.)

Name .....

Address .....

PLATES (5 apples per entry) - one plate per variety is permitted.

Varieties to be entered:

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DIAMONDS (16 apples per entry) one diamond per variety is permitted.

Varieties to be entered:

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IF FANCY BASKET will be entered, check here .....

Please list all probable entries, so table space can be arranged.

It is better to over-estimate than to have too little exhibit space.

We Specialize . . .

In Furnishing the

FRUIT GROWERS

With the Following Goods

BASKET CAPS	DOUBLE FACE BOARD
BASKET LINERS	BOX LINERS
BASKET FRINGES	BOX CUSHIONS
BASKET CUSHIONS	OIL WRAPS
PACKING SETS	SHREDDED PAPER

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Winchester, Va. **Albion, N. Y.**

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Ohio indicate that it is safe and effective for the following crops and diseases: Apple diseases (so far, excellent control of bitter rot), tomato diseases, and blights of potato. It injures rose foliage. The margin of safety in most cases is rather sharp and it should be used with caution and at the exact dilution recommended. It is compatible with arsenate of lead, hydrated lime, rotenone, nicotine, calcium arsenate and DDT. Its compatibility with other fungicides has not been determined. Tests with diluents and stickers have not been made. However, with spray, none are needed because it goes into suspension well and seems to have a lasting effectiveness that is remarkable.

The organic sulfurs listed above do not stunt or injure foliage in any way, that is, when used at the proper concentration. The margin of safety is rather sharp. Fermate is a black material and shows up dark on foliage and fruits. Methasan and Dithane are light in color and when sprayed on foliage do not show much. Puratized used in such extreme dilution scarcely shows at all.

The health and vigor of the foliage sprayed with these materials are exceptionally good. This showed up especially striking in our tests for bitter rot on apples in southern Ohio this season. The regular recommended formula for the control of that disease is a 4-6-100 Bordeaux. The comparative test was conducted on Grimes Golden. The apples are not yet harvested, but a careful inspection showed that the Bordeaux sprayed leaves and fruit were much smaller, distinctly russetted and not as colored as those sprayed with the organic sulfurs or Puratized. So far, the Puratized has given perfect control, and the Fermate gives a trace of rot.

If this same situation holds with other foliage and fruits, these compounds will find a very wide usage. There is no doubt either, that their specificity, in so far as foliage injury is concerned will not be as narrow as either copper or sulfur. Their toxicity to fungi, specially the organic sulfurs, may not be so broad. However, there is much more specific testing needed before the role of each can be determined.

"Farm products," complained the customer, "cost a good deal more than they used to."

"Sure they do!" agreed Farmer Jones. "When a farmer has to know the botanical name of what he is raising, and the zoological name of the insect that eats it, and the chemical name of what kills it, somebody's got to pay."

AMERICAN FRUIT GROWER

The American Fruit Grower Magazine will continue their policy of sending that publication to *paidup grower-members* of the Horticultural Society. They also have a plan whereby a paid-up membership in the Society may be given to friends as a Christmas present. This also carries a year's subscription to the American Fruit Grower. Anyone interested in such an appropriate gift to friends may send the $2.00 either to A. F. Vierheller, College Park, Maryland, or to American Fruit Grower Magazine, 1370 Ontario Street, Cleveland, Ohio.

NATIONAL HORTICULTURAL ADVISORY COMMITTEE

Following the resolution approved by the Maryland State Horticultural Society at the January, 1944 Annual Meeting, there has been correspondence regarding the final formation of the National Horticultural Advisory Committee. This Committee would represent all horticultural interests in the country, to work together and to act as advisors with Government officials in matters affecting the industry, especially in cases where export trade was involved. This should be a strong Committee representing growers of all types of fruits. Acting in cooperation with other Horticultural Societies, Secretary A. F. Vierheller has written Mr. C. W. Kitchen, Deputy Administrator, War Food Administration, asking that a meeting be called after the first of the year, to consider the formation of such a Committee.

MEMBERSHIP FEES INCREASED

After very little discussion, it was voted at the January, 1944 Annual Meeting to increase the membership fees in Maryland State Horticultural Society to $2.00 beginning January 1, 1945. The increase was necessary due to need for increased revenue to carry on the work of the Society.

D.D.T.

Let's give this D.D.T. the "once-over" and see what its all about. First, the name is dichloro-diphenyl-trichlorethane but don't let that bother you. This powder prevented typhus in Naples after the invasion when delousing was done by military authority on a city-wide scale. The material was discovered in 1874 by a young German chemistry student and it was forgotten until 1939 when a Swiss company brought it out to replace some insecticides that were cut off by war. When we got into the war the powder was being used to destroy typhus-bearing lice. It was tried out in this country, and many marvelous things were discovered about it. D.D.T. is made from sulfuric acid, chlorine, benzene, and alcohol. It is a stomach poison for insects, but mainly it affects the nervous system of insects. They say it may be harmless if diluted, but don't try drinking it. The material may be used as a liquid if diluted with kerosene, alcohol, etc., or it may be used as a powder, mixed with talc. Tests show that if sprinkled on clothes it will keep clothes insect-proof through 6 to 8 washings. It protects against moths, and will clean a pond of mosquito larvae. Sprayed on walls it kills certain insects that touch the walls within three months after the spraying. Some plants sprayed with this material will be insect-proof for weeks. Rain doesn't seem to wash it away. It protects beds from bed-bugs, and animals from fleas, lice, etc. One part of the material to 99 parts of a carrier material will stop potato bugs. Some enthusiasts claim that it will control Jap beetle, corn ear worm, codling moth, Oriental moth, pea, bean, and cabbage pests, thrips, corn borer, etc. We know it will not control Mexican bean beetle, cotton boll-weevil or red spider. We should not become too enthusiastic about it until trials have been made. It may kill lots of beneficial insects such as honey bees and the parasites of Oriental moths. We don't know what effect it has on man, when sprayed vegetables or fruits are eaten, and we know also that many plants do not thrive when sprayed with this material. We must wait for more details. Anyway, we can't buy it commercially at the present time. Its effect on the nervous systems of insects and certain animals have given it the nickname "double delirium tremens." If it can knock out those pink elephants that tremens victims are said to see, then we've surely got something that will take care of almost all pests that plague mankind.

40

For forty years B. G. Pratt Products have been doing the hard jobs. Two generations of fathers and sons, and occasionally grandsons, testify to the achievements of these dependable sprays. If you have a special problem of scale control, codling moth, peach borers, or lime sulfur spray injury, ask our representative about it, or write us.

SCALECIDE. The only oil spray containing both vegetable and mineral oils. Does a most complete job. The safest oil spray to use.

D-X NICOTINE. A powerful nicotine spray of great penetration against aphis and sucking insects. Especially effective with arsenate of lead for difficult codling moth problems.

PARA-SCALECIDE. A combination of para-dichlorbenzene and Scalecide making a most effective peach borer control that is safe on young and old peach trees.

SPRAY CATALIZER. A spreader, sticker, and safener for lime sulfur and arsenate of lead, and other sulfur and lead combinations. Prevents the formation of black sludge.

Other Pratt Products—SPRA-CREAM, SUMMER SPRA-CREAM, D-X ROTENONE, SULFOCIDE, LINSO SOAP.

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